

## General

### Title

Stroke: percent of ischemic stroke patients administered antithrombotic therapy by the end of hospital day 2.

### Source(s)

Specifications manual for national hospital inpatient quality measures, version 5.0b. Centers for Medicare & Medicaid Services (CMS), The Joint Commission; Effective 2015 Oct 1. various p.

## Measure Domain

### Primary Measure Domain

Clinical Quality Measures: Process

### Secondary Measure Domain

Does not apply to this measure

## Brief Abstract

### Description

This measure is used to assess the percent of ischemic stroke patients 18 years of age and older administered antithrombotic therapy by the end of hospital day 2.

### Rationale

The effectiveness of antithrombotic agents in reducing stroke mortality, stroke-related morbidity and recurrence rates has been studied in several large clinical trials. While the use of these agents for patients with acute ischemic stroke and transient ischemic attacks continues to be the subject of study, substantial evidence is available from completed studies. Data at this time suggest that antithrombotic therapy should be initiated within 2 days of symptom onset in acute ischemic stroke patients to reduce stroke mortality and morbidity as long as no contraindications exist.

Anticoagulants at doses to prevent venous thromboembolism are insufficient antithrombotic therapy to prevent recurrent ischemic stroke or transient ischemic attack (TIA).

## Evidence for Rationale

Specifications manual for national hospital inpatient quality measures, version 5.0b. Centers for Medicare & Medicaid Services (CMS), The Joint Commission; Effective 2015 Oct 1. various p.

## Primary Health Components

Stroke; antithrombotic therapy

## Denominator Description

Ischemic stroke patients (see the related "Denominator Inclusions/Exclusions" field)

## Numerator Description

Ischemic stroke patients who had antithrombotic therapy administered by end of hospital day 2

## Evidence Supporting the Measure

### Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

A systematic review of the clinical research literature (e.g., Cochrane Review)

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

### Additional Information Supporting Need for the Measure

- Stroke ranks as the number five cause of death in the United States, following diseases of the heart, cancer, and chronic lung-related diseases. Each year, approximately 795,000 people experience a new or recurrent stroke. Approximately 610,000 of these are first attacks, and 185,000 are recurrent strokes. These numbers equate to one stroke victim every 40 seconds on average. According to 2010 mortality data, one of every 20 deaths in the United States is attributable to stroke. More women than men die of stroke each year. Women have a higher lifetime risk of stroke than men. Lifetime risk of stroke among those 55 to 75 years of age was 1 in 5 for women (20% to 21%) and approximately 1 in 6 for men (14% to 17%). Blacks have a risk of first-ever stroke that is almost twice that of whites (American Heart Association [AHA], 2015).
- Stroke is also a leading cause of long-term disability (Centers for Disease Control and Prevention [CDC], 2009). Data from the National Heart, Lung and Blood Institute (NHLBI) revealed that 50% of ischemic stroke survivors age greater than 65 years had some hemiparesis; 35% experienced depressive symptoms; 30% were unable to ambulate without assistance; 26% were dependent in activities of daily living; 19% had aphasia; and 26% were institutionalized in a nursing home. The mean lifetime cost of ischemic stroke, including inpatient care, rehabilitation, and follow-up as necessary for residual deficits are estimated at \$140,048 per person (AHA, 2015).
- Antithrombotic agents significantly reduce the incidence of a recurrent vascular event after a stroke. Among these agents, aspirin has been the drug most widely studied. The International Stroke Trial

demonstrated that antithrombotic administration, specifically aspirin, within the first 48 hours after stroke, significantly reduced the risk recurrent ischemic stroke and death (11.3% vs. 12.4%) in the first 14 days following the event. In conjunction with this, findings from the Chinese Acute Stroke Trial indicate that aspirin produces a modest reduction of approximately 10 deaths per 1000 during the first few weeks. Both trials recommend that aspirin should be given as soon as possible after the onset of stroke symptoms. It appears that the primary benefits of aspirin are due to early reduction in recurrent stroke rather than limitation of neurological deficits of the first stroke.

## Evidence for Additional Information Supporting Need for the Measure

American Heart Association (AHA). Heart disease and stroke statistics - 2015 update. Dallas (TX): American Heart Association (AHA); 2015. 22 p.

Centers for Disease Control and Prevention (CDC). Prevalence and most common causes of disability among adults--United States, 2005. MMWR Morb Mortal Wkly Rep. 2009 May 1;58(16):421-6. [PubMed](#)

## Extent of Measure Testing

Unspecified

## State of Use of the Measure

### State of Use

Current routine use

### Current Use

not defined yet

## Application of the Measure in its Current Use

### Measurement Setting

Hospital Inpatient

### Professionals Involved in Delivery of Health Services

not defined yet

### Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

### Statement of Acceptable Minimum Sample Size

Specified

## Target Population Age

Age greater than or equal to 18 years

## Target Population Gender

Either male or female

# National Strategy for Quality Improvement in Health Care

## National Quality Strategy Aim

Better Care

## National Quality Strategy Priority

Making Care Safer

Prevention and Treatment of Leading Causes of Mortality

# Institute of Medicine (IOM) National Health Care Quality Report Categories

## IOM Care Need

Getting Better

## IOM Domain

Effectiveness

Safety

# Data Collection for the Measure

## Case Finding Period

Discharges October 1 through June 30

## Denominator Sampling Frame

Patients associated with provider

## Denominator (Index) Event or Characteristic

Clinical Condition

Institutionalization

Patient/Individual (Consumer) Characteristic

## Denominator Time Window

not defined yet

## Denominator Inclusions/Exclusions

### Inclusions

Discharges with an *International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Principal Diagnosis Code* for ischemic stroke (as defined in the appendices of the original measure documentation)

### Exclusions

Patients less than 18 years of age

Patients who have a Duration of Stay less than 2 days

Patients who have a Length of Stay (LOS) greater than 120 days

Patients with *Comfort Measures Only* (as defined in the Data Dictionary) documented on day of or day after arrival

Patients enrolled in clinical trials

Patients admitted for *Elective Carotid Intervention* (as defined in the Data Dictionary)

Patients discharged prior to the end of hospital day 2

Patients with *Intravenous (IV) OR Intra-arterial (IA) Thrombolytic (t-PA) Therapy Administered at This Hospital or Within 24 Hours Prior to Arrival* (as defined in the Data Dictionary)

Patients with a documented *Reason For Not Administering Antithrombotic Therapy By End Of Hospital Day 2* (as defined in the Data Dictionary)

## Exclusions/Exceptions

not defined yet

## Numerator Inclusions/Exclusions

### Inclusions

Ischemic stroke patients who had antithrombotic therapy administered by end of hospital day 2

### Exclusions

None

## Numerator Search Strategy

Institutionalization

## Data Source

Administrative clinical data

Electronic health/medical record

Paper medical record

## Type of Health State

Does not apply to this measure

## Instruments Used and/or Associated with the Measure

- STK Initial Patient Population Algorithm Flowchart
- STK-5: Antithrombotic Therapy By End of Hospital Day 2 Flowchart

## Computation of the Measure

### Measure Specifies Disaggregation

Does not apply to this measure

### Scoring

Rate/Proportion

### Interpretation of Score

Desired value is a higher score

### Allowance for Patient or Population Factors

not defined yet

### Standard of Comparison

not defined yet

## Identifying Information

### Original Title

STK-5: antithrombotic therapy by end of hospital day 2.

### Measure Collection Name

National Hospital Inpatient Quality Measures

### Measure Set Name

Stroke

## Submitter

The Joint Commission - Health Care Accreditation Organization

## Developer

The Joint Commission - Health Care Accreditation Organization

## Funding Source(s)

All external funding for measure development has been received and used in full compliance with The Joint Commission's Corporate Sponsorship policies, which are available upon written request to The Joint Commission.

## Composition of the Group that Developed the Measure

The composition of the group that developed the measure is available at:

[http://www.jointcommission.org/assets/1/6/Roster\\_STK\\_Maintenance\\_TAP\\_web\\_posting\\_Jul2012.pdf](http://www.jointcommission.org/assets/1/6/Roster_STK_Maintenance_TAP_web_posting_Jul2012.pdf)

## Financial Disclosures/Other Potential Conflicts of Interest

Expert panel members have made full disclosure of relevant financial and conflict of interest information in accordance with the Joint Commission's Conflict of Interest policies, copies of which are available upon written request to The Joint Commission.

## Endorser

National Quality Forum - None

## NQF Number

not defined yet

## Date of Endorsement

2014 Dec 23

## Measure Initiative(s)

Hospital Inpatient Quality Reporting Program

Quality CheckÂ®

## Adaptation

This measure was not adapted from another source.

# Date of Most Current Version in NQMC

2015 Oct

## Measure Maintenance

This measure is reviewed and updated every 6 months.

## Date of Next Anticipated Revision

Unspecified

## Measure Status

This is the current release of the measure.

This measure updates a previous version: Specifications manual for national hospital inpatient quality measures, version 4.3b. Centers for Medicare & Medicaid Services (CMS), The Joint Commission; 2014 Apr. various p.

## Measure Availability

Source available from [The Joint Commission Web site](#) . Information is also available from the [QualityNet Web site](#) . Check The Joint Commission Web site and QualityNet Web site regularly for the most recent version of the specifications manual and for the applicable dates of discharge.

## NQMC Status

The Joint Commission originally submitted this NQMC measure summary to ECRI Institute on April 30, 2009. This NQMC summary was reviewed accordingly by ECRI Institute on September 9, 2009. The information was verified by the measure developer on November 9, 2009.

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## Production

### Source(s)

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